

We claim:

1. A method for the simultaneous quantitative and qualitative determination of individual phospholipids in a phospholipid mixture comprising:
- dissolving said phospholipid mixture in at least one extraction solvent;
  - applying said at least one extraction solvent having said phospholipid mixture dissolved therein to a thin layer chromatography (TLC) plate;
  - placing said TLC plate having said phospholipid mixture applied thereto into an elution solvent mixture; and
  - allowing said phospholipid mixture to migrate up said TLC plate in one direction until said individual phospholipids are separated from said phospholipid mixture such that all said individual phospholipids present in said phospholipid mixture can be individually detected.
2. The method of claim 1 wherein said individual phospholipids are selected from the group consisting of phosphatidylcholine, phosphatidylethanolamine, phosphatidylinositol, phosphatidic acid, phosphatidylserine, and sphingomyelin.
3. The method of claim 1 wherein said at least one extraction solvent is selected from the group consisting of chloroform, methanol, and water.
4. The method of claim 3 wherein said at least one extraction solvent comprises chloroform and methanol.
5. The method of claim 4 wherein said at least one extraction solvent comprises two parts chloroform and one part methanol.
6. The method of claim 1 wherein said TLC plate is coated with a silica gel.
7. The method of claim 1 wherein said elution solvent mixture comprises chloroform, methanol, acetic acid, and an aqueous solution of potassium chloride.

8. The method of claim 7 wherein said aqueous solution of potassium chloride consists essentially of water and 2.5% potassium chloride.

9. The method of claim 7 wherein said elution solvent mixture consists essentially of 35 parts chloroform, 10 parts methanol, 9.8 parts acetic acid and 1.2 parts aqueous solution of potassium chloride.

10. The method of claim 1 further comprising detecting said individual phospholipids using an ultraviolet detection system.

11. The method of claim 10 wherein said ultraviolet detection system further comprises primulin.

12. A method for the quantitative determination of individual phospholipids in a phospholipid mixture comprising:

dissolving said phospholipid mixture in at least one extraction solvent;

applying said at least one extraction solvent having said phospholipid mixture dissolved therein to a thin layer chromatography (TLC) plate;

placing said TLC plate having said phospholipid mixture applied thereto into a elution solvent mixture; and

allowing said phospholipid mixture to migrate up said TLC plate in one direction until said individual phospholipids are separated from said phospholipid mixture such that all said individual phospholipids present in said phospholipid mixture can be individually detected.

13. The method of claim 12 wherein said individual phospholipids are selected from the group consisting of phosphatidylcholine, phosphatidylethanolamine, phosphatidylinositol, phosphatidic acid, phosphatidylserine, and sphingomyelin.

14. The method of claim 12 wherein said at least one extraction solvent is selected from the group consisting of chloroform, methanol, and water.

15. The method of claim 12 wherein said at least one extraction solvent comprises chloroform and methanol.

16. The method of claim 15 wherein said at least one extraction solvent comprises two parts chloroform and one part methanol.

17. The method of claim 12 wherein said TLC plate is coated with a silica gel.

18. The method of claim 12 wherein said elution solvent mixture comprises chloroform, methanol, acetic acid, and an aqueous solution of potassium chloride.

19. The method of claim 18 wherein said aqueous solution of potassium chloride consists essentially of water and 2.5% potassium chloride.

20. The method of claim 18 wherein said elution solvent mixture consists essentially of 35 parts chloroform, 10 parts methanol, 9.8 parts acetic acid and 1.2 parts aqueous solution of potassium chloride.

21. The method of claim 12 further comprising detecting said individual phospholipids using an ultraviolet detection system.

22. The method of claim 21 wherein said ultraviolet detection system further comprises primulin.